

US005889512A

United States Patent [19]

Moller et al.

[11] **Patent Number:** 5,889,512

[45] **Date of Patent:** Mar. 30, 1999

[54] EXTENDIBLE STYLUS

[75] Inventors: Ronald J. Moller, Boulder Creek;

Jonathan P. Ive, San Francisco, both of

Calif

[73] Assignee: Apple Computer, Inc., Cupertino,

Calif.

[21] Appl. No.: 506,462

[22] Filed: Jul. 24, 1995

Related U.S. Application Data

[63]	Continuation of Ser. No. 2	205,314, Mar. 2, 1994, abandoned.
------	----------------------------	-----------------------------------

[51] **Int. Cl.**⁶ **G09G 5/00** [52] **U.S. Cl.** **345/179**; 178/19.01; 401/95;

[56] References Cited

U.S. PATENT DOCUMENTS

5,180,891 1/1993 Trumbo		7/1987 9/1991 1/1993 1/1993	•
-------------------------	--	--------------------------------------	---

OTHER PUBLICATIONS

Cohen, Rains, "Slimmed-Down MessagePad to Beef up RAM, Recognition," MacWEEK, Feb. 14, 1994, vol. 8, No. 7, pp. 1 & 84.

Primary Examiner—Richard A. Hjerpe
Assistant Examiner—Kent Chang
Attorney, Agent, or Firm—Beyer & Weaver, LLP

[57] ABSTRACT

An extendible stylus includes a body and an extension telescopically engaged with the body. The stylus may be extended to an open position and collapsed to a closed position, where opposite ends of the stylus are farther apart in the open position. A first, internal detent mechanism of the stylus retains the stylus in the open position. A stop mechanism preferably holds the stylus in the closed position. A receptacle, such as a hole in a case of a portable computer, is engageable with the stylus such that a second, external detent mechanism is provided between the case and the stylus to retain the stylus in engagement with the case. The case is provided with a member which engages a groove positioned on one end of the stylus to form the second detent mechanism. When the stylus is being engaged with the case, a force to overcome the first detent mechanism is greater than a force to overcome the second detent mechanism so that the stylus can be engaged with the case before the stylus is moved to the closed position. When the stylus is being disengaged from the case, the force to overcome the first detent mechanism is less than the force to overcome the second detent mechanism, so that the stylus can be extended to its open position before it is removed from the case.

11 Claims, 6 Drawing Sheets

